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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,788	06/28/2001	Kenichi Nishikawa	040894-5685	9631

9629 7590 05/18/2004

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WASHINGTON, DC 20004

EXAMINER
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ROY, SIKHA

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Applicati n No.</b>	<b>Applicant(s)</b>	
	09/892,788	NISHIKAWA, KENICHI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sikha Roy	2879	

**-- The MAILING DATE f this c mmunication appears n the c ver sheet with the correspondenc address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-16 and 18-21 is/are allowed.
- 6) ☒ Claim(s) 1-6, 17, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

The Amendment, filed on March 31, 2004 has been entered and overcomes the rejection of claims 1-11,17, under 35 U.S.C. § 112, second paragraph.

New claims 18-23 have been entered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-6, 17, 22 and 23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Referring to claims 1,17, 22 and 23 the limitation reciting 'glaze layer is between 1 and 9  $\mu\text{m}$ ' is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification discloses ([0061]) the glaze layer having thickness of 7 to 150 $\mu\text{m}$ , desirably 10 to 50 $\mu\text{m}$ , and glaze slurry being coated with thickness of about 100  $\mu\text{m}$  ([0121]). However the specification discloses ([0032], [0060]) the marking layer having a thickness between 1 and 10  $\mu\text{m}$ .

***Allowable Subject Matter***

Claims 7-16,18-21 are allowed over the prior art of record.

The following is an examiner's statement of reasons for allowance:

Regarding claims 7 and 18 the references of the Prior Art of record fails to teach or suggest a spark plug with the combination of the limitations as set forth in claim 7, and specifically the limitation of the marking layer comprising 30 to 60 mass% of an Fe component in terms of  $\text{Fe}_2\text{O}_3$  and 10 to 40 mass % of a Cr component in terms of  $\text{Cr}_2\text{O}_3$ .

Claim 8 is allowed being dependent on the claim 7.

Regarding claims 9 and 19 the references of the Prior Art of record fails to teach or suggest a spark plug with the combination of the limitations as set forth in claim 9, and specifically the limitation of the marking layer comprising 10 to 40 mass% of a Co component in terms of  $\text{CoO}$ .

Regarding claims 10 and 20 the references of the Prior Art of record fails to teach or suggest a spark plug with the combination of the limitations as set forth in claim 10, and specifically the limitation of the marking layer comprising 0.5 to 15 mass% of a Ni component in terms of  $\text{Ni}_2\text{O}_3$ .

Regarding claims 11 and 21 the references of the Prior Art of record fails to teach or suggest a spark plug with the combination of the limitations as set forth in claim 11, and specifically the limitation of the marking layer comprising 0.5 to 15 mass% in total of

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at least one of an Al component and a Ba component, the Al component being in terms of  $\text{Al}_2\text{O}_3$  and the Ba component in terms of BaO.

The reasons for allowing claims 12 – 16 have already been cited in the previous office action.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

S.R.

Sikha Roy  
Patent Examiner  
Art Unit 2879



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